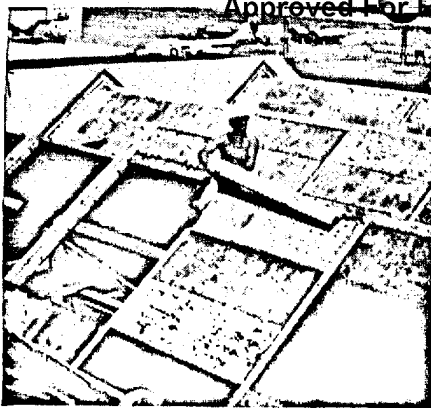
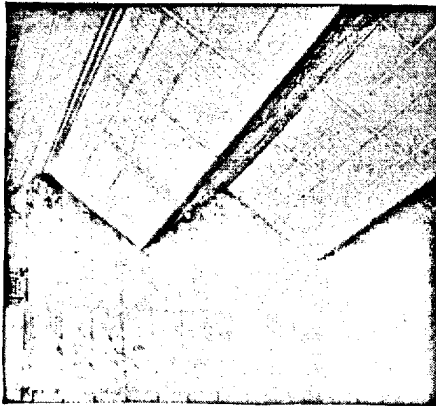


## 4th Quarterly Cost Roundup



**SYMONS STEEL-PLY FORMS  
HELP CUT COSTS ON  
FOLDED-PLATE ROOF JOBS**



Oakland Construction Company, Salt Lake City, Utah, cut costs and saved time and material on the Hill Air Force Base job, Ogden, Utah, by supporting Symons Steel-Ply Forms on ingeniously designed wood trusses to make a folded-plate roof. The same forms that were used for forming the walls, were also used for the folded-plate roof.

The truss-support idea, the result of the Corps of Engineers specifications calling for 14 days support of roof concrete, is an adaptation of the Symons Slab Shore System for building slabs. Trusses were left in place, to support the slab, without disturbing the contact point when forms were stripped.

Each truss consists of double 2x8's, shaped to fit the folded-plate configuration. Bolted by 1/2 in. steel bolts to each side of each truss is a 2x4 Douglas-fir bearing timber, set 2 in. from the face of the truss to take the 2 ft. wide form panels. It's this feature, after concrete sets, which enables carpenters to remove the steel bolts, pull the 2x4's loose, and leave the wood trusses in contact to continue their support of the slab. The trusses were set on 6 ft. centers, so that 6 ft. long Steel-Ply Panels could be used.

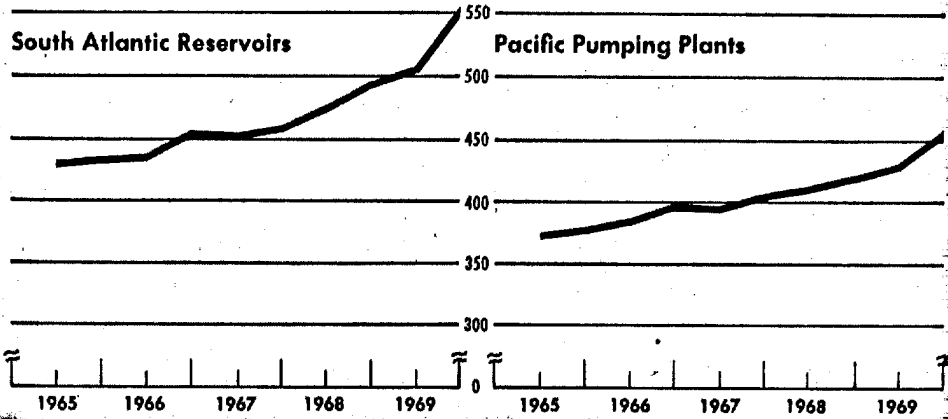
Symons Steel-Ply Forms can be rented, purchased or rented with purchase option.



**CONCRETE FORMING EQUIPMENT  
SYMONS MFG. COMPANY**  
114 EAST TOWN AVE., DEER PLAIN, ILL. 60015

**MORE SAVINGS WITH SYMONS**

## Handy-Whitman Indexes (1913=100)



# Waterworks Cost Climb

Construction costs are eating deeply into the waterworks investment dollar.

Costs of new water plants are climbing by 7% to 10% or more per year, depending on type of facility and geographical area, according to the indexes compiled by Whitman, Requardt & Associates, of Baltimore.

Costs climbed because of the four-way push on contractors' basic costs: manpower, materials, machinery and money requirements. Adding to the pressure on costs was the sharp climb in waterworks lettings this year, up over 40% through the first 11 months, according to ENR figures.

• **South hit hardest**—The worst cost inflation for water utility construction in the nation has come in the South Atlantic region. The Handy-Whitman indexes (see table) show jumps of 11.9% in reservoir costs, 10.5% in large treatment plants and 10% in pumping plants over the 12-month span ending July, '69. Smaller treatment plants are up a shade less, 9%. Most of this cost climb occurred in the six months ending July, '69.

The uptrend was nearly as bad in the North Central region. There, costs jumped nearly 11% for reservoirs and large water treatment plants during the year ending July, '69 (chart above.)

The North Atlantic took a distant third position among the regions with the fastest rates of cost increase. Not too far behind it came the South Central region.

The Pacific Coast region was near the bottom of the ranking. The only region with a slower rate of cost increases was the Plateau region.

The rates of increase show a little different order when only the latest, January-July, 1969, period is measured. The North Atlantic clearly emerges as the victim of the sharpest rise for costs in this period. And the North Central

## Handy-Whitman Indexes

Whitman, Requardt & Associates, Baltimore  
1913 = 100

(Complete index reports 29 items)

A: RESERVOIRS, collecting & impounding  
B: PUMPING PLANTS, structures & improvements  
C: PUMPING EQUIPMENT, electric  
D: WATER TREATMENT PLANTS, large  
E: WATER TREATMENT PLANTS, small

Jul '40 Jul '45 Jul '49 Jul '53 Jul '56 Jul '57 Jul '58 Jul '59 Jul 7/68-1/69-1/69-7/69 % Change

<b>North Atlantic Division</b>												
A	110	135	206	383	396	415	438	445	478	+9.1	+7.4	
B	109	131	209	349	361	374	392	401	421	+7.4	+5.0	
C	102	105	179	293	307	321	323	323	335	+3.7	+3.7	
D	113	134	199	346	362	377	394	400	427	+8.4	+6.8	
E	112	131	204	340	355	368	384	389	412	+7.3	+5.9	

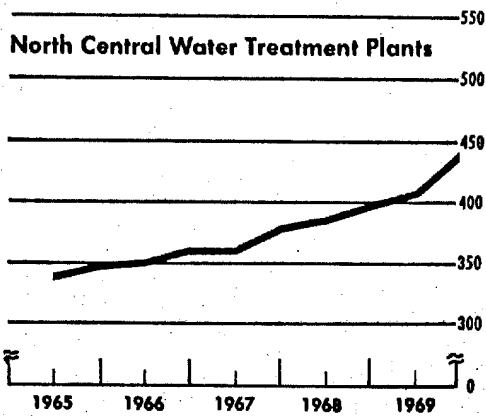
<b>South Atlantic Division</b>												
A	125	147	233	436	457	466	494	510	553	+11.9	+8.4	
B	108	143	222	385	399	405	430	457	473	+10.0	+3.5	
C	102	105	178	293	307	321	323	323	335	+3.7	+3.7	
D	112	148	232	408	430	433	465	484	514	+10.5	+6.2	
E	111	143	228	393	413	417	445	460	485	+9.0	+5.4	

<b>North Central Division</b>												
A	108	128	198	363	376	392	409	424	453	+10.8	+6.8	
B	108	132	206	353	366	379	398	410	437	+9.8	+6.6	
C	102	105	178	293	307	321	323	323	335	+3.7	+3.7	
D	111	131	196	350	368	380	398	414	441	+10.8	+6.5	
E	110	130	201	346	362	374	389	401	424	+9.0	+5.7	

<b>South Central Division</b>												
A	109	136	216	389	405	422	452	465	486	+7.5	+4.5	
B	107	132	209	367	379	391	413	424	440	+6.5	+3.8	
C	102	105	178	293	307	321	323	323	335	+3.7	+3.7	
D	113	135	212	360	379	390	410	423	446	+8.8	+5.4	
E	111	132	212	353	371	383	400	410	429	+7.3	+4.6	

<b>Plateau Division</b>												
A	106	122	187	335	340	357	374	381	393	+5.1	+3.1	
B	106	124	205	337	339	348	366	372	385	+5.2	+3.5	
C	102	105	178	293	307	321	323	323	335	+3.7	+3.7	
D	110	127	192	331	340	353	372	378	388	+4.3	+2.6	
E	109	125	195	327	335	346	363	368	376	+3.6	+2.2	

<b>Pacific Division</b>												
A	109	134	213	392	418	434	449	456	481	+7.1	+5.5	
B	107	134	214	381	397	409	424	436	463	+9.2	+6.2	
C	102	105	178	293	307	321	323	323	335	+3.7	+3.7	
D	110	138	210	374	398	412	431	442	463	+7.4	+4.8	
E	109	135	210	360	383	395	411	421	438	+6.6	+4.0	



# Is 7-10%

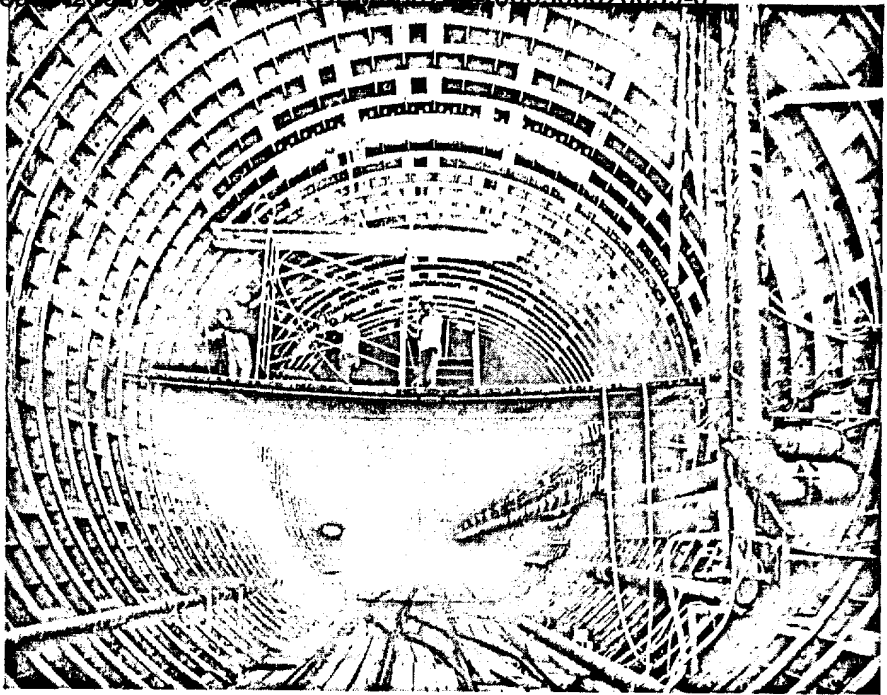
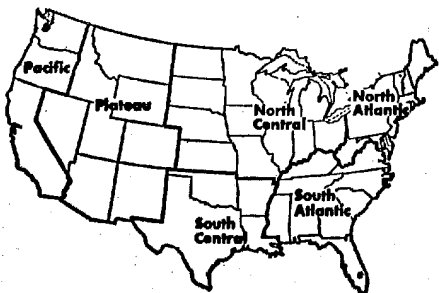
moves up to second, while the South Atlantic drops to third.

Electric pumping equipment had a 12-month increase of 3.7% in each division.

The Handy-Whitman indexes of water utility construction costs are compiled for waterworks plant in six geographic divisions, for use by the water utility industry.

Materials prices are obtained from ENR and other publications, and are checked against prices actually being paid wherever possible. The prices of pipe, valves, meters, etc., are obtained from manufacturers. Labor factors are obtained from such sources as the Department of Labor, unions, and the Builders Association of Chicago.

• **1970 and beyond**—The alarming rate at which America has been polluting or using up its water resources has become a major political issue this decade. Congressional appropriations for water control will be larger in 1970 than ever before. Public fear of over population and pollution drying up the water supply will result in much greater construction volume in this area during the 1970s.



## PICK NAYLOR

*...The Pipe Built  
To Handle All These  
Jobs For You*

For your construction pipe, it makes good sense to specify Naylor Spiralweld pipe for both its economy and versatility in piping performance.

Though light in weight, Naylor's spiralweld structure provides the extra strength needed for heavy-duty service. When you can team up this pipe with the one-piece Naylor Wedgelock coupling, your lines can be installed faster and with additional savings.

Pipe sizes range from 4" to 30" in diameter and thickness from 14 gauge to 1/4" wall. Available in carbon steel, structural quality, or abrasion-resistant analysis to meet specific piping applications.

- ★ Water Supply
- ★ De-watering
- ★ Dredging
- ★ Piling
- ★ Concrete Pumping
- ★ Slurry Lines
- ★ Ventilation
- ★ Compressed Air

Mail coupon for details.



**Naylor Pipe Company**

1248 East 92nd Street, Chicago, Illinois 60619

Eastern U. S. and Foreign Sales Office:  
90 East 42nd Street, New York, N.Y. 10017

Naylor Pipe Company  
1248 East 92nd Street, Chicago, Ill. 60619

Please send Bulletin No. 82  
on pipe applications  
in the construction field.

Name \_\_\_\_\_  
Firm \_\_\_\_\_  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_